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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,688	03/09/2006	Naoki Iijima	052078	9126
38834 7590 04/13/2009 WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP 1250 CONNECTICUT AVENUE, NW SUITE 700 WASHINGTON, DC 20036				
EXAMINER				
JACOBS, TODD D				
ART UNIT		PAPER NUMBER		
3746				
MAIL DATE		DELIVERY MODE		
04/13/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/524,688

**Applicant(s)**

IIJIMA ET AL.

**Examiner**

TODD D. JACOBS

**Art Unit**

3746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 3-6 and 8-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-6 and 8-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

This office action is in response to the amendment of 1/26/2009. Note that in making the below rejections, the examiner has considered and addressed each of the applicant's arguments.

#### ***Claim Rejections - 35 USC § 103***

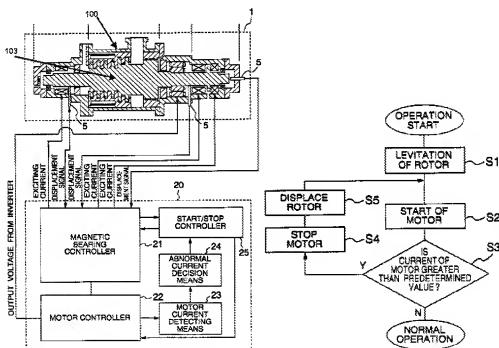
1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-6, 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uchida et al (4,664,601) in view of Sakagami et al (5,961,291).
3. In re claim 1, Uchida discloses a vacuum pump comprising:
  - A pair of pump rotors rotatably disposed in a casing (1), said pump rotors being rotatable synchronously in opposite directions;
  - Note that as shown on fig. 3 of Uchida, from T1' to T2, the rotors are rotated in a forward direction for steady state evacuation;
  - However, Uchida fails to disclose a pump-rotor controller for controlling rotation of said pump in accordance with a predetermined pattern when the pump is started, the predetermined pattern including a combination of at least two of rotation of said pump rotors in a forward direction, rotation of said pump rotors in a reverse direction, and stop of the rotation.
4. Nevertheless, Sakagami discloses a pump-rotor controller for controlling rotation of said pump in accordance with a predetermined pattern when the pump is started, the predetermined pattern including a combination of at least two of rotation of said pump rotors in a forward

direction, rotation of said pump rotors in a reverse direction, and stop of the rotation. Note that col 9, line 38 states, while discussing figure 1 below “the pump rotor may be turned forwardly or reversely a predetermined number of times by a small angle”, step S2 could be in forward or reverse directions. This allows the rotor to scrape deposits off of the surrounding structure and thereby allowing for a more efficient pump.

5. Therefore, it would have been obvious to modify Uchida in view of Sakagami by using the forward/backward motions of Sakagami with the pump of Uchida in order to scrape deposits of the surrounding structure, leading to a more efficient pump. Further, it would have been obvious to add the start/stop controller (25) of Sakaqami to ensure no abnormalities.



### Figure 1

6. In re claim 3, with reference to figure 1 above, Uchida/Sakagami discloses that the predetermined pattern is set in said pump-rotor controller such that said pump rotor is driven in the order of the rotation in said forward direction, the stop, and the rotation in said forward

direction. Note that if the pump of Uchida is "turned forwardly or reversely a predetermined number of times by a small angle" as stated above, the pump does turn forward, stop, then turn forward again. Note it must stop at some point when it switches to reverse from going forward.

7. In re claim 4, with reference to figure 1 above, Uchida/Sakagami discloses the vacuum pump wherein the predetermined pattern is set in the pump-rotor controller such that the rotors are rotated in the order of said reverse direction and said forward direction. Note that if the pump of Uchida is "turned forwardly or reversely a predetermined number of times by a small angle" (col 9, line 38) as stated above, the pump does turn in reverse, stop, and then turn forward again.

8. In re claim 5 with reference to figure 1 above, Sakagami discloses:

- a state-judging device (24) for judging whether said pump rotor is rotated normally or not at the time of starting said vacuum pump;
- wherein when said state-judging device (24) judges that said pump rotor is not rotated normally at the time of starting said vacuum pump, said pump rotor is rotated in accordance with said predetermined pattern (occurring at step S3).

9. Regarding to claims 6, 8-11, under the principles of inherency, if a prior art device, in its normal and usual operation, would necessarily perform the method claimed, then the method claimed will be considered to be anticipated by the prior art device. When the prior art device is the same as a device described in the specification for carrying out the claimed method, it can be assumed the device will inherently perform the claimed process. *In re King*, 801 F.2d 1324, 231 USPQ 136 (Fed. Cir. 1986). MPEP 2112.02.

#### ***Response to Arguments***

10. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TODD D. JACOBS whose telephone number is 571-270-5708. The examiner can normally be reached on Monday - Friday, 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Kramer can be reached on 571-272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Devon C Kramer/  
Supervisory Patent Examiner, Art Unit  
3746

/TODD D. JACOBS/  
Examiner, Art Unit 3746